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AND CONSERVATION

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Cover Letter

March 20, 2009

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U.S. Army Corps of Engineers, 10 W 15th St. Suite 2200, Helena, MT 59626
U.S. Fish and Wildlife Service, MT Field Office, 100 N. Park Ave. Helena, MT 59601

Ladies and Gentlemen:

The enclosed Finding of No Significant Impact/Decision Notice has been prepared for the Ruby River Dam Rehabilitation Project. Please contact James P. Domino at (406) 444-6622 (e-mail jdomino@mt.gov) should you have any questions. Copies of the Final EA are available upon request. The Final EA can also be viewed on the DNRC website at www.dnrc.mt.gov. Thank you.

Sincerely,

John Tubbs
Water Resources Division Administrator

FINDING OF NO SIGNIFICANT IMPACT/
NOTICE OF DECISION
March 20th 2009

Dear Reader:

The Montana DNRC released a draft Environmental Assessment (EA) on November 19th, 2008 on the Ruby River Dam Rehabilitation Project. The Ruby Dam and Reservoir is located on the Ruby River, in Madison County approximately 7 miles south of Alder. The dam is managed and administered by SWPB on behalf of the DNRC. The project has been operated by the Ruby River Water Users Association since the dam was built in 1938. The spillway condition has been deteriorating for many years. An inspection conducted by the Army Corps of Engineers (COE) in 1981 found the spillway capacity inadequate, with the spillway showing serious deterioration. For this reason, the Corps classified the dam as unsafe according to the standards set forth under the National Dam Inspection Act, Public Law 92-367. The spillway has since deteriorated to the point that replacement of the entire structure is needed. The proposed action calls for the construction of a new spillway that will meet or exceed all current state dam safety requirements. The existing low level outlet control gate will be removed and the downstream portion of the outlet works conduit will be slip lined with a steel penstock. A new control gate will also be installed on the downstream end of the penstock at the dam toe. A new outlet terminal structure will also be constructed to replace the existing deteriorating structure.

Sedimentation has reduced the storage capacity of the reservoir by approximately 2,000 acre-feet over the past 70 years. The proposed action would raise the spillway and dam crests by 7 feet and 4 feet respectively and increase the existing capacity of the reservoir by 7,473 acre-feet (37,642 to 45,115 acre-feet). The increased capacity will recapture the 2,000 acre-feet of original capacity lost to sedimentation. If the necessary beneficial use permits can be secured the increased capacity would also provide 2,600 acre-feet to maintain a minimum conservation pool in the reservoir, and up to 2,710[1] acre-feet to market for instream uses such as fish, wildlife, recreation and hydropower.

The public comment period closed on Friday, December 19th, 2008. One agency, one non-profit and two public comments were received, from the Montana Department of Fish, Wildlife and Parks (DFWP), Trout Unlimited (TU), and two of the private landowners that have property and/or residences along the reservoir shore, respectively. Since there were a relatively small number of comments received, the DNRC responded individually to each of those commenting. The comments and DNRC responses have been incorporated into this Decision Notice and are summarized as follows:

A. Responses to DFWP Comments:

1. The DFWP Supports the Preferred Alternative:

DNRC Response to Comment:
Your support for the Preferred Alternative is acknowledged and on record.

2. Page 8, Alternative B - Preferred Alternative: "7,000 additional acre feet could be stored in 8 out of 10 years". What data set was this generated from? If a life-of-project data set was used, this may reflect this period; however, is that a realistic assumption considering water supply over the past 20 years and current climate trends?

DNRC Response to Comment:
This information was calculated in the Ruby Dam Rehabilitation Feasibility Study, Water Availability Analysis, completed by HKM Engineering of Billings, MT in January 2008. The Water Availability Analysis is available for review if desired (contact the DNRC State Water Projects Bureau at (406) 444-6646). Issues of water availability, both physical and legal, will be considered in much more detail during the water rights permitting process. For the purposes of this EA when it is considered that the proposed minimum conservation pool (2,600 acre-feet) will only require one year to fill and that the additional storage to market for instream uses is not something that must happen every year, the HKM estimate is sufficient for SWPB to go forward with the preferred alternative.

3. Page 9, Table 1. Is there an error in Reservoir Storage column for Alternative B? Should this figure be consistent with the 45,115 acre feet value described on page 8?

[1] Previously 2,665 a/f was anticipated. New survey data indicated a slight increase.

DNRC Response to Comment:
An error does exist in Table 1, page 9. The figure should read 45,115 acre-feet.

4. Page 10, 3.3 Water Resources fourth paragraph: "Average flow is about 90,000 acre feet..." We assume that what is intended by this statement is an assessment of average annual discharge from the basin. If that is the case, USGS, for the period of 1963 to 2003, calculated the annual runoff to be 149,600 acre-feet. If this is intended to represent an expression of mean annual flow, which is 206 cfs, in terms of an acre foot per day value, that would be 408 acre feet.

DNRC Response to Comment:
Comments noted. As previously stated, we will have to show that water is available as part of the water right permits.

5. Page 12, 3.7 Fisheries: Fisheries and stream flow data for the Reservoir and several study sections of the Ruby River, Beaverhead River and Jefferson River extend back as far as the 1970's. Long-term fisheries surveys document the high-value fisheries potentially affected by the proposed project. Review of reports documenting fishery trends will be important for selecting an Alternative for dam repair and will be helpful for guiding water management in the reservoir should additional water become available. DFWP provided DNRC with copies of the most recent river and reservoir fishery reports to aid in the development of this EA. Please incorporate and reference existing reports in the affected area.

This section should also describe our WETP Minimum flows and associated water reservation water rights granted in the Upper Missouri Water Reservation Process. Those water rights created and quantified an in stream flow of 40 cfs from the dam to the river's mouth year round and an in stream flow of 90 cfs beginning at the confluence of the East, Middle and West forks of the Ruby River and extending down stream to the Ruby Reservoir. While those water rights are junior to the existing water rights associated with Ruby Reservoir's original construction, they would be senior in priority to enhanced storage.

The consent decree recommended the 20 – 30 cfs minimum dam release and the minimum pool of 2,600 acre feet. However, the public consensus process that crafted that agreement also developed a series or "Reservoir Fisheries Target Pools" of 6,500 and 10,000 acre feet. Those pool levels greatly enhance the reservoir fishery and while perhaps not attainable in low water years, are reached in better water years and should be reflected in the EA.

DNRC Response to Comment:
The DNRC recognizes the importance of the Ruby Reservoir and river downstream of the project as a high quality fisheries and recreational resource. However, the purpose of the draft EA is to focus on the impacts associated with bringing the project into compliance with the Dam Safety Act, including any affects that the actual construction associated with the proposed rehabilitation project will cause. The benefits related to the use and future marketing of any potential increased storage will be assessed and evaluated in the water rights permitting process. At this time, reservoir operations, minimum releases, and minimum pool levels are covered by the current Operations and Maintenance Manual.

6. Page 14, Recreation: "use of Ruby Reservoir is light to moderate..." The referenced 2005 figure is erroneous and should be corrected to 10,094 angler-days. Angling pressure estimates for 2007 for the Ruby Reservoir as the 14th most used water body in Region 3 and 49th in the state. Obviously these numbers gain greater importance on a per-surface-acre basis but, as an ice fishery, Ruby Reservoir was 5th in the Region and 19th in the state. This level of use can hardly be described as "light to moderate". The EA should also reference fishing pressure on the Ruby River reach downstream from the dam.

DNRC Response to Comment:
Comments noted. Recreational use (angling) will be noted as high, with the referenced 2005 figure corrected to 10,094 angler-days.

7. Page 15, Effects of Construction – 4.2 Topography: Alternative B inundates 167.5 new acres of land and Alternative C inundates 56.2 new acres. (The existing reservoir appears to be just over 940 surface acres under the current pool.) There would be a significant new nutrient input by inundating 15% more area, at least for the first years and perhaps ongoing if there is a significant annual vegetative accumulation. When comparing the two alternatives (B and C), there is a potentially three-fold difference with Alternative B. The surface acre-to-volume ratio obviously increases significantly between Alternatives B and C. The potential thermal input into the reservoir, as well as potential evaporative loss, should be examined.

DNRC Response to Comment:
Comments noted. The effects to topography were evaluated based on similar rehabilitation projects of comparable scope and scale, and an evaluation of the existing shoreline land forms and structure. Should the Department be successful in obtaining new water right permits, the main area where newly flooded acres would be created exists primarily in the upper end of the reservoir (south end). This area would experience an initial loss of vegetation and increase in exposed soil. As the pool levels in this reservoir already fluctuate greatly, as the project is drafted, the overall net affect of additional exposed shoreline should be small. As noted there may be a potential increase in wind and wave erosion at some localized areas, mostly along the east shore in vicinity of the BLM Campground and Highway 357 along the northeast shoreline. If these areas show an increase over current erosion issues, the impacts could easily be mitigated with some form of slope erosion control.

8. Page 20, Species of Concern: FWP has documented Arctic grayling in Ruby Reservoir through gill net samples and angler catches. These fish are likely introduced through upstream efforts by FWP to reestablish this species in the drainage. FWP also commonly captures westslope cutthroat trout in Ruby Reservoir gill net samples.

DNRC Response to Comment:
Comments noted. Please note that the "Inventory of the Sport Fisheries of Clark Canyon and Ruby Reservoirs in Southwest Montana" December 2007 by Richard A. Oswald, contains one minor reference to westslope cutthroat trout being present in the reservoir or river downstream from the dam (introduction, last paragraph), and no reference to grayling. Also, the report contains no population data for either species. The Montana Natural Heritage file search for fish species of special concern also does not list cutthroat trout or grayling as being present in the reservoir or river.

9. Effect of Construction – Fisheries: The third paragraph of this section under Alternative D states, "New impacts to fisheries resource may occur pending Department review of minimum pools operation levels". This comment suggests additional evaluations that are not contemplated in this EA. This action is a separate decision making process that would require separate evaluation under MEPA. If this comment is to be retained in the final EA, it will require a more detailed analysis, especially considering the past event that resulted in the creation of the "Consent Decree" previously introduced in the EA.

Please also note the following,

1) The increased storage would only benefit reservoir fisheries if and when higher levels were maintained in reservoir.
2) A minimum discharge of 20 cfs during the construction phase;
   a. is below the Minimum Flow Inflection Points of both 25 and 40 cfs,
   b. reflects the minimum of the "minimum flow range of the consent decree, and
   c. represents the worst and least acceptable management conditions.
3) Normal dam maintenance - inspection shut downs typically are not nearly as long as discussed in this section. What is the experience associated with an 8 hour cease in flow?
4) Why is spillway screening not mentioned as a potential part of long term project? We know that big runoff events similar to those of 1995 - 1997 establish relatively abundant populations of Eagle Lake rainbows in the upper 2 miles of river in the short term. These are fish planted in the reservoir and typically resident to the reservoir. In fact, FWP schedules reservoir plantings to occur after spillway flow is over to reduce loss.

DNRC Response to Comment:
We appreciate your concerns with minimum pool levels and minimum outlet discharges from the project, however, current operational guidelines of 20 to 30 cfs minimum dam releases and 2,600 acre-feet minimum pool will continue to be the standard for the reservoir. If we are unsuccessful at obtaining water rights to maintain the conservation pool and increase storage to release for instream uses, we will then look at our options to adjust our operations to best satisfy our existing water marketing contracts. Your other comments under this item concerned gate closures up to 8 hours and looking at screening the spillway. Please note that 8-hour construction related shutdowns were used at the Tongue River Rehabilitation Project, based on DFWP recommendations, with no significant impacts to fisheries resources occurring. We anticipate working and coordinating our efforts with DFWP during the final design process to fine tune acceptable construction closure times to minimize negative impacts to downstream resources. Screening a structure of this size is not economically feasible. The tremendous surface area that would be required, not to mention the daunting task of maintaining and keeping the structure clear of debris would require substantial engineering and design, as well as the associated cost to build such a structure. To date, no state water project has a spillway screen, nor are we aware of any other project, private, state, or federal, that incorporates a screened spillway, nor has any been formally recommended by the DFWP.

10. Page 20 and 21, Table 2: Mean annual flows are the least useful method to display reservoir operations and the flow conditions created. These numbers reflect, at best, a flow discharge condition that may exist instantaneously only twice a year (once as the runoff climbs and again when if falls). This table adds little to the EA and, in fact, misrepresents conditions. These values have little, if any relevance to the minimum over-winter releases during construction phase. Using a summary of mean daily flows, or perhaps monthly discharges would provide a more meaningful picture of water management and releases. Additionally there is no reason to limit the period of record to flow conditions that occurred prior to the consent decree.

DNRC Response to Comment: *Historical flow information prior to the consent decree is useful to provide a broad illustration of flows over a longer time frame, which includes low and high flow years. We agree that showing mean annual flows is not very informative, and will incorporate the mean monthly flows in the final EA. Please note that the Stipulation and Order Terminating the Consent Decree, Cause No. ADV-95-640 was issued by the Montana First Judicial District, Lewis and Clark County on November 14, 2002. The DNRC has voluntarily followed the consent decree stipulations since then.*

11. Page 29, Preferred Alternative B: Existing operations could be changed if release of the 2,665 acre feet resulted in a lower-than-average end of season storage pool and a lower over-winter dam release. Therefore, it is critical that reservoir management be carefully evaluated with respect to end-of-season stream-flow conditions, minimum reservoir pools, recommended reservoir targets and winter by-pass flows.

DNRC Response to Comment: *Comments noted. As stated above, reservoir operations, minimum releases, and minimum pool levels are covered by the current Operational and Maintenance Manual. Should the DNRC be successful in appropriating additional storage, negotiations with interested parties may be conducted for the purpose of marketing the new storage for beneficial uses, while maximizing revenues for the water storage state special revenue account of Mont. Code Ann. § 85-1-620..*

12. Page 31, Spillway Stilling Basin: FWP, in reviewing this section and the previous section, is attempting to evaluate the velocities generated into the river channel and be assured that undo erosional scour of stream bed, banks, redds, aquatic invertebrates does not occur. The text describes flows great enough for the spillway basin to act as a flip bucket and project a water jet into the river channel. It also describes the installation of a 60 foot 45 degree wing wall along the left bank of the spillway basin to prevent scour (probably counter-current eddy scour) of the dam toe. Finally, rip-rap of the left bank of the river below the wing wall is proposed. With all of these structural protection efforts planned, it seems that one might expect some pretty large velocities to be projected into the river channel. Most of the figures presented in this section are "maximum output" scenarios. The prior section (2.1.2) discusses an anticipated velocity of 79.5 ft/s at the stilling basin at the 20,000 cfs design maximum. FWP suggests that this section should provide a of range of anticipated point velocities projected into the river from the stilling basin across a normal runoff regime and how this fluctuation is mitigated by the proposed 45 degree wing wall.

DNRC Response to Comment:
As stated in the EA, the proposed stilling basin would be designed to contain the 500-year event. Flows over this would not be contained and erosion and scour will occur downstream of the dam. For flows up to the 500-year event, downstream impacts will be negligible or minimal. The proposed layout provides better protection for the downstream channel than what has been in place for the last 70 years.

13. Page 33, Project Costs: This section should include costs for Alternatives C and D for comparative purposes.

DNRC Response to Comment:
Cost estimates associated with Alternatives C and D is provided in the HKM Feasibility Analysis and is available for review at the SWPB Office in Helena if desired.

B. Trout Unlimited Comments

1. TU Supports the Preferred Alternative.

DNRC Response:
Your support for the Preferred Alternative is acknowledged and on record.

2. Recreational River Fishing an Important Economic Stimulus.

DNRC Response to Comment:
The DNRC agrees with Trout Unlimited (TU) concerning the importance of the Ruby Reservoir and River for their high quality fisheries and associated recreational opportunities. The high economic and ecological value of these resources is acknowledged and understood, and is addressed appropriately in the draft EA. The scope of the draft EA assessed social, economic and ecological impacts to the area in the vicinity of the dam and reservoir in keeping with the primary goal of the rehabilitation, that being to maintain the dam in a safe condition and rehabilitate the structure so that it meets all current state dam safety standards. The DNRC recognizes that one of the primary marketing opportunities for new storage will be for beneficial instream flows. Hydropower and reservoir fisheries are also potential uses of any new marketable water. However, as the EA's primary goal is to address dam safety issues and the efforts required to bring the project into compliance with the Montana State Dam Safety Act, our efforts were mainly directed to evaluate the environmental, social, and economic impacts of the proposed alternatives as they relate to existing conditions. The other significant beneficial aspects of possible marketing opportunities and uses for new storage will be addressed in the water right application process.

3. Cost Projections Unchanged Despite Decline in Fuel Costs and Commodity Pricing Volatility.

DNRC Response to Comment:
The DNRC readily agrees that projecting future construction costs, given the current economic conditions, is a difficult proposition. As our Engineer's Estimate was prepared in late 2007, much of the volatility concerning fuel and oil prices in the last year should not affect costs that much. However, other issues such as the recession, the upcoming proposed federal stimulus package, contractor availability, and other unknowns will dictate our final costs. We deal with these financial uncertainties by applying contingency factors to our design and construction cost estimates, and, when we project costs out over a long period of time, we typically use the most recent 5 or 10 year running indexing average for heavy civil costs. While we strive to accurately project and estimate future costs on our rehabilitation projects, please note that the EA provides a best possible estimate at the time of publication. We realize that actual design and construction costs will change, and, should there be an extended period of time between finalizing the EA and actual construction, the appropriate contingency factors and cost indexing are typically applied for budgeting purposes.

4. Scope of the EA is Appropriate.

DNRC Response to Comment:
The environmental and economic benefits of the proposed rehabilitation related to the new storage are discussed in the Fisheries Section 4.7 and Socio-Economic Section 4.13 under "effects of construction". Beneficial economic and environmental affects caused by additional storage are briefly mentioned, and will be addressed further as part of our water right application process. As stated previously, the scope of this draft EA primarily reflects the anticipated economic, social and environmental benefits relative to resolving the existing dam safety issues. The DNRC appreciates the research and effort that went into your comment letter. The documentation and background information, and references cited, will be most useful in our efforts to obtain water right permits in this closed basin.

C. Kruer Law Firm Comments (Stephanie Gehres Kruer, representing Andy and Marylin Verhow):

1. Request for information concerning 'Mitigation Measures' for raising the reservoir storage.

DNRC Response to Comment:
We will be hiring a land appraiser to provide us current market rates for each land parcel affected by the proposed reservoir raise. The final reservoir level depends on whether or not the DNRC is able to secure funding and necessary water rights for the increased storage proposed in the preferred alternative. Further analysis and engineering will be completed after the project is funded and we are able to select and hire a consultant. One of the more desirable options under consideration will require additional engineering and surveying services to regrade and landscape the affected area to maintain access and protect the Verhow residence.

2. Request that the Department not proceed in acquiring permits until your client's issues are addressed.

DNRC Response to Comment:
The DNRC must proceed with our efforts to acquire the necessary permits to allow construction for bringing the Project into compliance with the Montana Dam Safety Act. The construction phase will not impact the Verhow residence, and the construction will proceed whether or not it is determined to go forward with the increased storage phase.

3. Request to keep the Verhow's and the other adjacent landowners informed of project progress.

DNRC Response to Comment:
The Verhows and all affected landowners will be put on a mailing list for future public meetings concerning the Ruby Rehabilitation project, should any meetings be scheduled. If the DNRC schedules public meetings, they will be advertised and noticed in the local media. The Verhows and those on the mailing list will be informed in writing of other project aspects as information becomes available. In addition, we anticipate personal correspondence and meetings with the Verhows should it be determined that the reservoir is to be raised to a level that could impact their home.

D. Crowley, Haughey, Hanson, Toole & Dietrich Law Firm Comments (Renee L Coppock representing the Ruby Valley Hydroelectric Authority):

Introduction - Protection of vital habitat for fish and other wildlife...support of agricultural lands...economic viability...fisheries and scenic values...water quality and quantity. "We do not believe the State has met that burden".

DNRC Response to Comments:
The Bureau shares your concern for fish, wildlife, and agriculture on the Ruby River. Those concerns are why the Bureau chose alternative B—with optimal increased storage—as the preferred alternative. Whether or not the Bureau is able to proceed with additional storage remains dependent on whether the Bureau is able to secure new water rights through the DNRC new appropriations process—a process that will evaluate in detail the impacts of the raised pool. As noted in the EA the sale or use of additional stored water was beyond the scope of the EA.

1. DNRC Decision Criteria - compliance with state statutes, MCA 85-1-701(2) and (3); MCA 85-1-701 (2)(f):

DNRC Response to Comments:
The proposed rehabilitation project at Ruby Dam is primarily for public safety reasons—to bring the dam in compliance with the Montana Dam Safety Act. The spillway and outlet structures are inadequate and deteriorating. These problems must be addressed whether or not water rights for additional storage are acquired. Engineering and design studies determined that the new configuration of the dam and spillway could accommodate additional storage at minimal cost and adverse impact. The EA considered the benefits and impacts of alternative pool elevations and selected Alternative B because it would provide the most benefit with little added adverse impact. If the appropriate water use permits are obtained, the additional storage will benefit fish, wildlife, and agriculture. The additional storage could also provide a source for income to help pay costs for construction, operations, and maintenance.

Any construction to render Ruby Dam safe will result in temporarily increased sediment and turbidity below the reservoir. These issues were addressed in the EA. As with any construction project, all local, state and federal water quality requirements must be met. The State Water Projects Bureau has consulted with and will obtain the appropriate permits from the Montana Department of Fish, Wildlife, and Parks, the Montana Department of Environmental Quality, and the United States Army Corps of Engineers.

2. Removal of Sediment from the Reservoir not included in any alternative; should include sediment removal alternative:

DNRC Response to Comments:
Excepting the no action alternative, the alternatives to be considered must address the safety issues caused by the deteriorating and inadequate spillway and outlet structure. The alternatives must also be economically feasible and achievable under current technology (Mont. Code Ann. § 75-1-201(1)(b)(i)(C)(I)). Sediment removal is not an alternative because it does not address the safety issues. Nor is sediment removal economically feasible. Removing and safely disposing of over 3,225,000 cubic yards of lake sediments would cost between $15,000,000 and $30,000,000. Moreover, the downstream water quality, turbidity, and sedimentation issues associated with disturbing such a large surface area would be substantial and in addition to the construction disturbance that must occur at the dam regardless. The preferred alternative will allow recovery of the capacity lost to sedimentation in addition to making the dam safe for substantially less than it would cost to remove the sediments, with substantially less water quality impacts.

3. Future Sedimentation – No alternatives deal with future sedimentation issues:

DNRC Response to Comments:
Sedimentation is not the problem being addressed by dam rehabilitation. Ruby Dam does not have a sedimentation problem. After seven decades of service, only about 5% of the available storage has been affected by sedimentation. It is likely that most of the 2000 acre-feet of lost storage was generated from a single 500-year flood event that occurred back in the 1980s.

4. Alternative B – storage discrepancy...concerns with water rights permitting...economic benefits...flooded land...increased erosion...sedimentation...impacts to county roads... impacts on wildlife and vegetation: [see next paragraph]

5. Alternative C: RVHA adopts the comments set forth in Section 4 above as if fully set forth in this Section 5.

DNRC Response to Comments (4 and 5):
Concerning the discrepancy in storage capacity, please refer back to the text in the Environmental Assessment. The value in Table 1 is incorrect and will be corrected. If you have additional survey data and analysis that shows a larger increase in affected acres than our determination, please forward that information to us, with references cited, for our evaluation. Flooding impacts are typically infrequent and short-term, hence our comment that the affects would be non-significant in the short and long-term. Sedimentation issues from shoreline erosion (wave action) are minor, as evidenced by the last seven decades of performance. Alternative B will result in additional inundated acres and the impacts were addressed in the EA. However, the pool will only be raised when and if State Water Projects Bureau is able to obtain the necessary new water rights. Impacts from the raised pool under the alternative will be more specifically addressed during the DNRC water use permitting process. Addressing your concerns regarding culverts and county roads, we noted that some mitigation efforts will be required to ensure that they stay in service. An Environmental Assessment is not a final design document, and those issues relative to sizing and locating culverts will be addressed during final design. Regarding wildlife and vegetation issues, the Montana Department of Fish, Wildlife and Parks, as well as the United States Army Corps of Engineers were contacted and consulted with on this project. Further review of the proposed action(s) and consultation with the respective agencies will also occur through the permitting processes required for the rehabilitation, as detailed in Section 1.4 of the EA.

6. Wetlands and water resources: More comprehensive study must be made...impacts to downstream wetlands....impacts to ground water...

DNRC Response to Comments:
There will be no wetlands impacts downstream of the project. All wetlands affects for this project are within the construction area of the project and the shoreline, should we be successful in our applications for new water right permits. Shoreline impacts from any raised pool for additional storage will be addressed during the water rights permitting process. Regarding new wells, should raising the reservoir affect water quality in existing private wells (residences), State Water Projects Bureau will have to mitigate that adverse affect.

7. Fisheries: How will species be protected...impacts from reduced water quality...change in temperature...long-term increase in sedimentation in the river...

DNRC Response to Comments:
The Montana Department of Fish, Wildlife and Parks was consulted and will continue to be consulted concerning fisheries. If we are unable to obtain a water right for the additional storage, water quality and in stream flow benefits from storage will be unrealized, but the construction impacts from rehabilitation will remain. These impacts (to fisheries and water quality) will only last for the duration of the construction and end upon completion of the project; therefore they are short-term and non-significant. Water quality will be monitored through the project according to applicable permitting requirements. Permitting requirements are detailed in Section 1.4 of the EA.

8. Vegetation: Acres affected by the proposed project...

DNRC Response to Comments:
The EA at page 18 discusses the area disturbed by construction activities at the dam site. The estimated acreage of lands that may be inundated by raised reservoir pools are detailed in Section 4.4 Soils. This issue will also be addressed during the water rights permitting process. All disturbed areas at the construction site will be reclaimed and reseeded upon completion of the project.

9. Wildlife: Concern about lost habitat....

DNRC Response to Comments:
The Montana Department of Fish, Wildlife, and Parks was consulted concerning impacts to wildlife. Given the scope and scale of the project, the impacts are still deemed non-significant. The DFWP has not indicated otherwise.

10. Land use: Impacts to crop production and grazing, stock watering...

DNRC Response to Comments:
We are aware of one residence that the proposed raise will likely affect. We are not aware of any other residential structures or crops that would be affected by the reservoir raise. Grazing and stock watering will not be affected by the proposed action.

11. Recreation: Affects to the BLM Campground...boat launch...

DNRC Response to Comments:
Continued public access and recreation were addressed in the EA. Affected recreational facilities will be relocated or replaced, as needed.

12. Project Costs: Not enough funds in the 2009 budget....

DNRC Response to Comments:
Your comment is noted. The DNRC is continuing efforts to secure funding for the project

13. Need for EIS: As set forth above, this project could cause significant impacts, so an EIS is required under Montana Law...Ravalli County Fish and Game Association vs. Dept. of State Lands (case cited)...

DNRC Response to Comments:
For the proposed scope of work, and possible minimal affects from increasing storage, the Environmental Assessment as completed, is sufficient and meets all regulatory requirements. The Ravalli County Fish and Game Association case cited in your letter is not applicable here because in that case the Montana Department of State Lands was aware of the potential impact of sheep grazing on adjacent Big Horn Sheep habitat but did not evaluate the significance. Here, State Water Projects has evaluated the potential adverse impacts and determined them to be minimal.

E. DNRC Action

No other comments were received other than those listed and summarized in this Notice of Decision.

The DNRC reemphasizes our commitment to working cooperatively with all interested parties on enhancing and protecting the valuable natural resources that encompass the Ruby River Dam and Reservoir. The DNRC is also equally committed to protecting the State's water rights and legally recognized beneficial water uses, and ensuring that all state-owned water projects are operated and maintained in a manner that fully complies with the Montana Dam Safety Act. The DNRC notes that many of the comments, issues and concerns are outside the scope of this EA. The DNRC acknowledges these comments and will address them, when feasible and warranted, in future negotiations with the respective affected interests.

Based on the EA's disclosure and analysis of potential impacts, the comments received, funding issues, and the on-going Water Right Permitting Process, the DNRC will proceed as follows:

1. Compliance with the Montana Dam Safety Act will be the primary and initial emphasis. Therefore, the primary emphasis of rehabilitation will concentrate on bringing the project into compliance with the Dam Safety Act. This entails a full spillway replacement, removal of the existing low level outlet control gate, lining the downstream portion of the conduit with a steel penstock, and installing a new control gate on the downstream end of the penstock at the dam toe. Improved access associated with the rehabilitation will be installed at the dam crest and downstream toe.

2. Pending the successful acquisition of water rights through the Water Right Permitting Process and project funding, the reservoir's full pool elevation would be raised to elevation 5,400 (i.e. raising the spillway crest 7.0 feet above the existing flashboards and the dam crest 4 feet). The storage at elevation 5,400 would be 45,115 acre-feet. A minimum

pool of 2,600 acre-feet will be established to avoid low storage levels that may cause adverse fisheries impacts and enhance the existing fisheries. Minimum flows will continue to be set according to the current Operation and Maintenance Manual. An additional 2,710 acre-feet of storage would be made available for marketing to new uses. Consideration will be given to marketing the additional water for in-stream flow augmentation for fisheries and recreational resource enhancement, contingent upon successful marketing negotiations with the interested parties. Other non-consumptive beneficial uses will be considered as well. .

Prior to implementing item 2, mitigation measures would be taken to protect the Verhow home located on the east side of the reservoir. These mitigation measures would be planned, developed and initiated collaboratively with the affected landowner.

Other identified impacts will be addressed and mitigated by the DNRC collaboratively with all affected landowners and/or interests, including the purchase of flood easements and/or fee title to affected lands, protection and/or reconstruction of transportation routes (affected County Roads and State Highway 357), dust abatement (primarily at the south end of reservoir), relocation or replacement of the affected recreational facilities (BLM Campground, DFWP Fishing Access Site), fencing, weed control, utility line re-routing, and reseeding and reclamation of disturbed areas. For informational purposes a "mean monthly flow" chart for the Ruby River is included as an attachment to this Notice of Decision.

The DNRC concludes that the actions proposed will not result in any significant impacts. The DNRC will adopt the draft EA as the final EA, with the incorporation of the aforementioned revisions as stated in the "DNRC Response to Comments" and the phased project planning and actions detailed above in Part E, DNRC Action.

Copies of the Final EA are available upon request. The Final EA can be viewed on the DNRC website at www.dnrc.mt.gov in the Environmental Documents section. Please direct any questions to:

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1424 9th Avenue, P.O. Box 201601
Helena, MT 59620-1601
(406) 444-6622 e-mail: jdomino@.mt.gov

Thank you for your interest.

Sincerely,

John Tubbs
Water Resources Division Administrator

USGS Surface-Water Monthly Statistics for the Nation

USGS 06020600 Ruby River below reservoir near Alder, MT

Available data for this site | Time-series: Monthly statistics | GO

Madison County, Montana
Hydrologic Unit Code 10020003
Latitude 45°14'32", Longitude 112°06'36" NAD27
Drainage area 596 square miles
Gage datum 5,286.6 feet above sea level NGVD29

Output formats

Tab-separated data

Reselect output format

00060, Discharge, cubic feet per second,

YEAR	Monthly mean in cfs (Calculation Period: 1962-12-01 -> 2008-09-30)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1962												38.4
1963	46.7	40.1	31.2	35.1	188.6	427.5	307.4	399.3	219.1	185.4	42.1	30.5
1964	31.6	32.1	34.3	34.8	275.5	866.8	378.9	398.2	281.0	244.1	92.9	31.1
1965	32.7	32.4	58.7	191.6	209.8	606.7	367.1	369.1	213.1	215.5	158.3	52.2
1966	34.1	35.2	36.7	85.1	419.2	386.7	290.2	327.1	202.0	95.3	54.2	23.7
1967	23.4	21.7	22.4	37.2	221.0	651.2	361.4	402.2	352.4	183.1	105.9	48.3
1968	32.8	33.2	43.0	52.0	237.9	734.5	332.0	341.5	249.8	147.2	65.9	87.1
1969	90.5	89.1	136.9	131.8	684.4	458.9	289.5	451.9	289.7	121.9	52.5	47.8
1970	42.7	41.0	39.9	155.2	561.9	938.7	437.5	473.5	261.0	162.0	82.8	53.3
1971	57.2	92.4	101.0	159.5	559.7	726.1	469.0	331.6	243.9	150.9	72.0	80.4
1972	86.5	89.9	105.4	159.6	421.1	715.1	333.0	389.4	275.7	170.3	149.1	46.8
1973	31.0	31.8	32.6	75.7	560.5	477.4	266.0	348.4	216.3	129.2	75.0	51.9
1974	49.1	51.6	104.7	150.4	333.5	658.0	311.5	361.4	290.0	164.5	51.0	43.0
1975	47.0	46.6	45.5	66.4	362.1	1,019	558.5	354.8	399.0	234.1	108.5	138.8
1976	127.3	65.6	58.7	128.0	663.4	544.0	390.9	405.3	296.0	142.8	93.7	84.9
1977	66.3	48.2	43.1	48.0	327.6	422.0	292.5	366.8	239.6	83.0	66.7	61.4
1978	57.3	69.7	104.6	133.0	435.8	621.1	324.0	408.3	280.5	167.6	73.4	50.0
1979	42.0	45.3	83.3	104.9	349.9	484.1	348.2	349.8	212.9	61.2	38.5	37.0
1980	37.6	38.0	38.5	41.6	514.8	634.7	334.8	413.4	217.3	95.3	81.9	76.3
1981	52.6	45.2	61.8	138.4	552.4	556.2	388.1	352.5	274.4	57.0	50.3	42.3
1982	41.6	42.2	51.5	134.5	476.9	822.7	455.2	463.5	358.8	131.7	103.6	103.5
1983	103.8	72.1	84.3	114.0	366.1	917.2	466.8	446.1	357.8	118.5	128.6	141.6
1984	139.0	86.4	68.2	128.5	1,035	1,209	427.2	351.0	387.4	239.3	222.3	67.9
1985	54.5	56.5	60.3	156.0	403.8	378.7	266.1	221.8	136.0	38.0	37.7	50.2
1986	53.4	53.9	57.3	76.1	444.6	575.3	305.5	370.7	182.0	78.5	70.6	49.6
1987	51.4	37.8	34.2	94.5	343.2	281.0	254.5	242.8	256.7	88.5	35.2	29.3
1988	30.2	29.9	35.6	39.9	410.8	397.3	331.4	302.7	131.5	59.3	33.6	24.1

1989	20.9	26.7	27.6	32.8	287.0	397.8	310.3	253.1	196.9	53.7	33.6	30.9
1990	29.8	22.3	24.4	37.7	317.3	377.7	358.4	298.1	255.4	120.7	48.9	34.4
1991	26.5	21.4	19.3	30.5	209.1	516.1	317.0	281.0	216.9	87.1	45.2	28.2
1992	31.6	33.4	34.3	55.1	390.7	294.7	196.8	327.1	162.6	48.0	36.5	29.2
1993	23.9	25.0	24.8	36.3	554.8	534.6	295.7	329.4	336.3	173.3	67.3	64.4
1994	55.4	56.8	57.7	121.5	377.4	313.4	328.1	265.6	59.4	56.9	41.3	29.8
1995	25.4	25.9	24.7	58.8	452.0	1,054	490.3	382.2	302.1	128.5	88.4	125.1
1996	115.6	52.4	94.4	165.5	441.5	730.3	380.7	364.3	245.6	109.6	42.3	43.8
1997	45.7	47.7	105.8	125.7	470.8	702.2	323.5	329.1	289.8	133.7	78.4	42.0
1998	38.6	54.6	174.3	99.6	580.5	772.2	537.4	429.9	285.6	154.5	123.7	85.2
1999	71.0	51.8	53.1	82.2	415.1	622.7	403.5	365.4	288.2	87.8	66.2	45.7
2000	38.5	35.1	30.5	50.2	346.2	338.7	295.7	309.9	196.4	40.5	40.1	37.6
2001	33.8	31.4	25.5	60.4	385.1	294.4	254.5	340.7	219.7	48.4	36.0	30.8
2002	31.5	32.2	31.3	34.2	248.4	306.9	293.3	279.6	160.6	40.2	28.9	23.6
2003	22.7	22.5	25.9	37.2	353.7	430.3	352.9	312.0	158.6	60.6	42.9	28.9
2004	27.1	28.5	29.5	46.2	306.6	280.7	266.6	320.9	195.9	61.2	44.0	32.5
2005	29.3	23.4	24.5	35.4	400.5	534.4	320.9	320.3	242.4	108.9	68.4	90.7
2006	76.6	62.1	43.6	77.1	549.2	446.0	319.0	340.4	213.3	86.6	65.5	46.9
2007	48.7	51.9	44.5	64.3	391.3	315.3	314.2	283.5	168.0	50.0	41.2	26.9
2008	22.0	21.5	28.2	49.9	476.4	767.3	413.9	342.3	266.9			
Mean of monthly Discharge	49	45	54	86	420	577	349	350	245	116	71	54

** No Incomplete data have been used for statistical calculation

Title: Surface Water data for USA: USGS Surface-Water Monthly Statistics
URL: http://waterdata.usgs.gov/nwis/monthly?

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